

# GEOGRAPHIC RESPONSE STRATEGIES: PART ONE – INTRODUCTION

## Purpose and Scope

These Geographic Response Strategies (GRS) are designed to be a supplement to the Southeast Alaska Subarea Contingency Plan for Oil and Hazardous Substances Spills and Releases, commonly referred to as the Southeast Alaska Subarea Contingency Plan (SCP). GRS provide unified (public, responders, and agencies) priorities and strategies for the protection of selected sensitive areas to aid first responders to an oil spill. The GRS list the sensitive resources of an area and the response strategies, equipment, personnel and logistical information necessary to protect the sensitive areas. Because the U.S. Coast Guard Marine Safety Office, Environmental Protection Agency and the Alaska Department of Environmental Conservation have already approved them, the GRS serve as pre-approved strategies of the Unified Command during the emergency phase of an oil spill response.

Implementation of these Geographic Response Strategies is the third phase of an oil spill response. The first and primary phase of the response is to contain and remove the oil at the scene of the spill or while it is still on the open water, thereby reducing or eliminating impact on shorelines or sensitive habitats. If some of the spilled oil escapes this tactic, the second phase, which is no less important, is to intercept, contain and remove the oil in the nearshore area. The intent of phase two is the same as phase one: remove the spilled oil before it impacts sensitive environments. If phases one and two are not fully successful, phase three is to protect sensitive areas in the path of the oil. The purpose of phase three is to protect the selected sensitive areas from the impacts of a spill or to minimize that impact to the maximum extent practical.

The sites selected for development of Geographic Response Strategies are not meant to be exclusive; other sensitive sites may require protection during any given spill. The fact that a GRS may not have been developed for a certain sensitive site does not mean that site should not be protected if it is threatened by an oil spill.

These strategies are intended to be flexible to allow the spill responders to modify them, as necessary, to fit the prevailing conditions at the time of a spill. Seasonal constraints, such as ice or weather, may preclude implementation of some of the strategies in the winter months. It is not intended that all the sites be automatically protected at the beginning of a spill, only those that are in the projected path of the spill. The strategies developed for the selected sites were completed with a focus on minimizing environmental damage, utilizing as small a footprint as needed to support the response operations and selecting sites for equipment deployment that will not cause more damage than the spilled oil. To test these GRS, each site may be visited and equipment deployed according to the strategy, to ensure that the strategy is the most effective in protecting the resources at risk at the site. Revisions will be made to the strategies, and this document, if changes are indicated by site visits, drills or actual use during spills.

The Southeast Alaska Subarea has been divided into nine geographic response zones (Figure G-1-1). The zones boundaries were chosen to reflect the geography and population centers in Southeast Alaska.

## How to Use These Geographic Response Strategies

The information provided here supplements information provided in the Southeast Alaska SCP and the Alaska Federal/State Preparedness Plan for Response to Oil & Hazardous Substances Discharge/Releases (commonly referred to as the Unified Plan). Information provided in either of those plans is not duplicated herein. This document is intended for use by response professionals already familiar with spill response techniques.

Part 2 contains a general description of the protection/recovery tactics utilized throughout the GRS. Each general description contains the strategy objective, deployment depictions, resource sets required to implement the strategy, and deployment considerations and limitations. These general strategies may be adapted to produce a protection scheme for any site in Southeast Alaska.

Part 3 contains site-specific response strategies. An index at the beginning of each sub-section shows the location of the selected sites. Each GRS consists of two parts: 1) a graphic showing a map, deployment diagram, picture and implementation notes; and 2) a table giving the location description, response strategy, response resources, staging area, site access, natural resources being protected and special considerations.

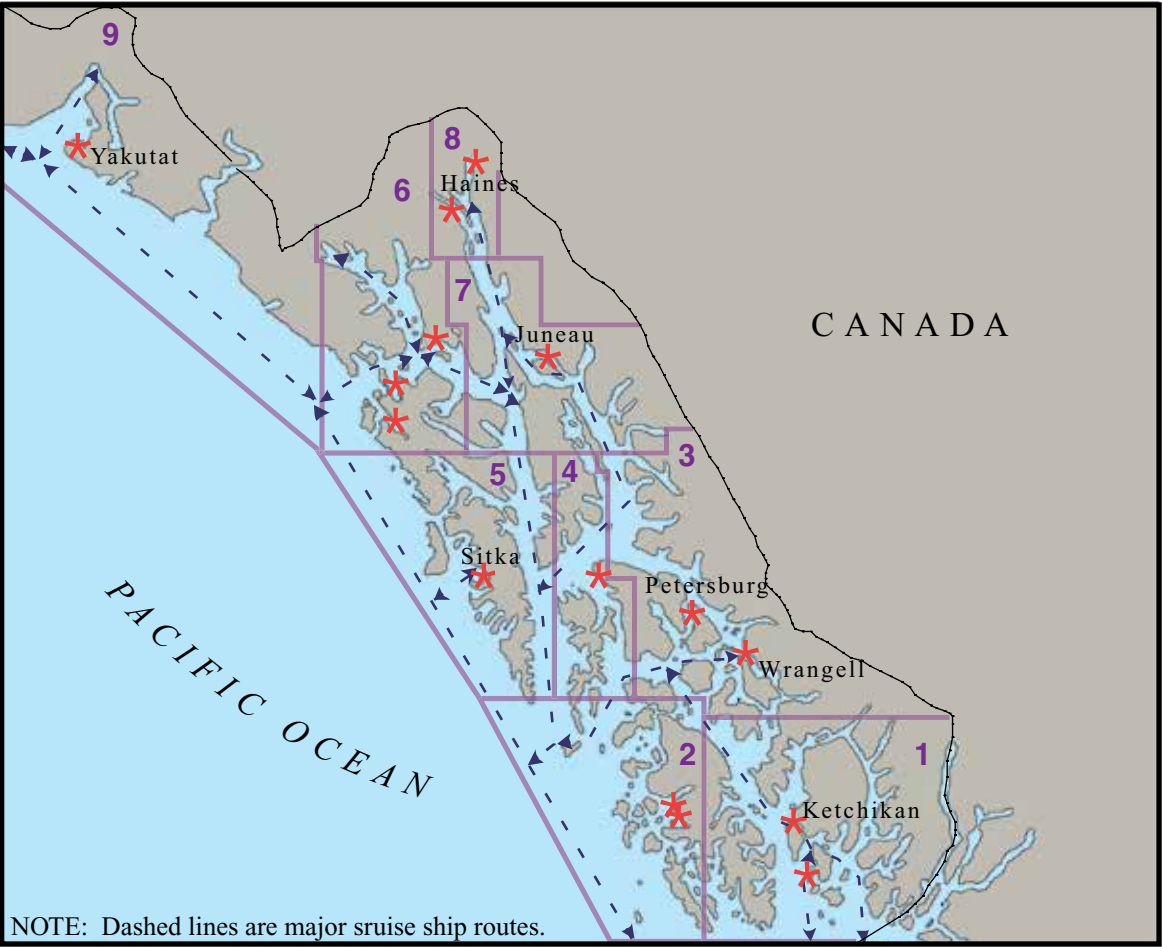


Figure G-1-1. Southeast Alaska Geographic Response Zones

## Who to Contact for Input

Comments and recommendations on these GRS are welcomed. Please send your comments to either of the following agencies:

Alaska Department of Environmental Conservation  
Prevention and Emergency Response Program  
555 Cordova Street  
Anchorage, AK 99501

United States Coast Guard  
Captain of the Port, Southeast Alaska  
2760 Sherwood Lane, Suite 2A  
Juneau, AK 99801

How the Document Was Developed

These GRS were developed through a cooperative, work group process involving federal, state, and local spill response experts working with representatives from the oil transportation industry, natural resource management agencies, and tribal organizations. The Southeast Alaska GRS work group developed the GRS for each of the nine response zones. The work group consisted of representatives from the following organizations:

- Alaska Department of Environmental Conservation
- National Park Service
- Southeast Alaska Petroleum Resource Organization
- United States Coast Guard
- United States Department of Interior
- United States Fish and Wildlife Service

The first step of the GRS process was to identify all sensitive areas that have potential to be classified as “Areas of Major Concern” under the criteria established in the Southeast Alaska SCP. Members of the Southeast Sensitive Areas Work Group (SAWG), participated in this process along with the GRS work group. The SAWG developed site selection matrices (Tables G-1-1 through G-1-10) to aid in the selection of sites in each of the nine response zones.

These potential sites were evaluated by the additional criteria of 1) risk of being impacted from a water borne spill; and 2) feasibility of successfully protecting the site with existing technology. Using this process, the SAWG selected a preliminary list of sites that were released for public input. Public hearings were advertised and held in Juneau, Petersburg, Sitka, and Ketchikan to solicit feedback from tribal representatives, user groups, environmental organizations and the general public. Based on the feedback received, the SAWG made the final site selections for each zone. Additional sites may be selected in the future.

The GRS work group then developed draft strategies for each selected site. The draft strategies were reviewed by the SAWG and the final draft was forwarded to the Southeast Alaska Subarea Committee with the recommendation that it be adopted as part of the Southeast Alaska SCP.

Marine Mammals	Fish	Birds	Coastal Habitat	Cultural Resources	Subsistence Use	Recreational Use	Commercial Fishing	Land Management	Waterfront Activity
H = Harbor Seal rookeries and haulouts	H = Herring spawning areas	S = Colony of over 500 seabirds	M = Marsh or estuary	R = Report any cultural resources found during operations to the FOSC Historic Properties Specialist	F = High use salmon harvest areas	H = High use commercial wildlife viewing	S = Intensive commercial salmon fishing	H = State critical habitat, refuge, sanctuary	B = Buildings on pilings
S = Steller Sea Lion rookeries and haulouts	E = Eulachon spawning concentration	C = Waterfowl & shorebird migratory, molting, and winter concentration	T = Sheltered tidal flat	I = FOSC Historic Properties Specialist should Inspect site prior to operations	I = High use marine invertebrate area		H = Salmon hatchery or ocean pen	P = State Park	M = Marinas and harbors
O = Sea otter concentration >100 otters	R = Juvenile fish rearing in kelp and reefs	M = Marbled murrelet nearshore feeding concentration	R = Sheltered rocky shore	M = FOSC Historic Properties Specialist should Monitor onsite operations			P = Shorebased fish processor	N = National Park and Preserve	F = Floating camps
W = Humpback whale summer, fall, winter concentration	S = More than 10,000 salmon spawners	K = Kittlitz murrelet (proposed endangered species) habitat	K = Kelp or eelgrass beds				N = Set-net fishery	L = National Landmark	I = Intertidal area of high diversity
			I = Intertidal area of high diversity					R = National Wildlife Refuge	
								I = International Reserve	
								W = Wild & Scenic River	
Source									
Primary sources: SE SCP, NOAA ESI maps, NMFS, ADFG, FWS, NPS data	Primary sources: ADFG, FWS, NMFS data	Primary sources: SE SCP, NOAA ESI maps, FWS Seabird Colony Catalog, ADFG, FWS data	Primary sources: NOAA ESI maps, FWS data	Primary sources: ADNR, USFS	Primary sources: ADFG, USFS data	Primary sources: ADNR, USFS, NPS data	Primary sources: ADFG data	Primary sources: ADNR, NPS, ADFG, FWS, USFS data	Primary sources: USFS, USCG, ADNR data

Table G-1-1. Key to Tables G-1-2 through G-1-10 Southeast Alaska Zone Geographic Response Strategies.

A. **SOUTHEAST ALASKA ZONE 1**

The Work Group developed Table G-1-2 to aid in the selection of sites from within Southeast Alaska Zone 1. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-2 shows the location of GRS sites in Zone 1.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

**A note of caution:** As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.

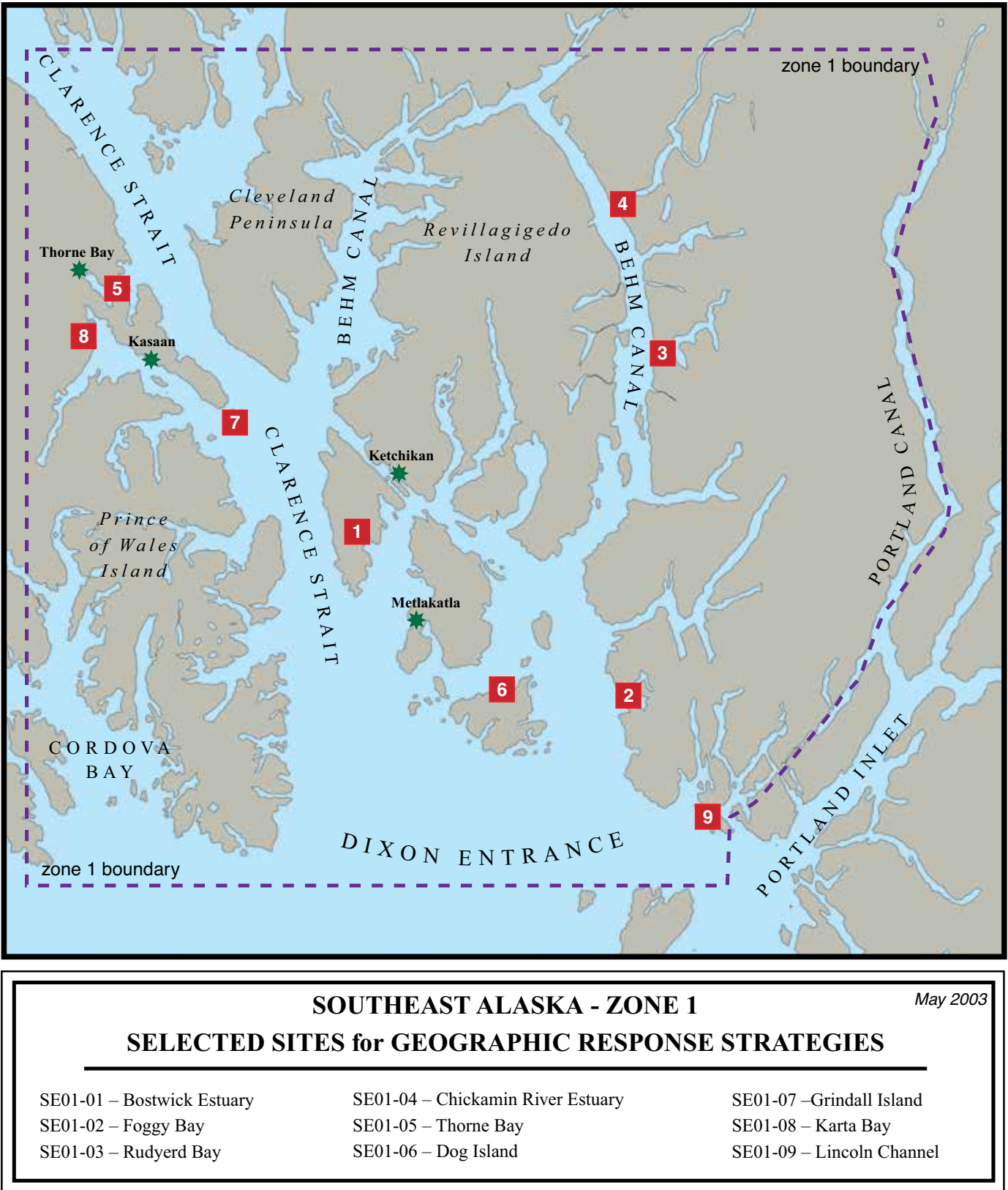


Figure G-1-2. Southeast Alaska GRS Index Map Zone 1.

Table G-1-2. **Zone 1** site selection table for Geographic Response Strategies.

Locations	Priority	GRS #	ESI Map #	lat (N)	lon (W)	Marine Mammals	Fish	Birds	Coastal Habitat	Cultural Resources	Subsistence Use	Recreational Use	Commercial Fishing	Land Management	Waterfront Activity
Bostwick Estuary	1	SE01-01	Ketch B-6	55°14'	131°44'		R,S	C	T,M,K	M	I				
Foggy Bay	1	SE01-02	Prince Rupert D-3*	54°57'	130°58'	S,H	S,H	C		M					
Rudyerd Bay	1	SE01-03	Ketch C-3	55°33'	130°49'	S,H	S	C	T,M	M					
Chikamin River Estuary	1	SE01-04	Ketch D-3	55°48'	130°57'		S	C	M,T	M					
Thorne Bay	1	SE01-05	Craig C-2	55°40'	132°30'		S			M	F,I				M
Dog Is., N end of Duke Is.	1	SE01-06	Prince Rupert D-4	54°59'	131°19'	S,H,O	S,H	C	T	I			Herring		
Grindall Is.–haulout	1	SE01-07	Craig B-1	55°26'	132°07'	S,H		C		I		H		P	
Karta Bay	1	SE01-08	Craig C-2	55°34'	132°33'	S,H	S	C	T,R	M	F				
Lincoln Channel	1	SE01-09	Prince Rupert C-3	54°43'	130°40'	H			T	I					
Tamgas Harbor	2		Ketch A-5	55°05'	131°46'		S		K, M		I	H			M
Burroughs Bay	2		Ketch D-4	55°59'	131°14'		E,S	C				H			
Carroll Cr. Estuary	3		Ketch C-5	55°39'	131°21'			C							
George Inlet Salt Chuck	3		Ketch B-5	55°20'	131°30'			C							
Helm Bay Estuary	3		Ketch C-6	55°40'	132°01'			C							
Moser Bay Estuary	3		Ketch C-5	55°34'	131°41'			C							
Port Stewart Estuary	3		Ketch C-6	55°44'	131°52'			C							
Roosevelt Lagoon/Naha Bay	3		Ketch C-5	55°35'	131°36'			C							
Settlers Cove	3		Ketch C-6	55°30'	131°14'				R,I					P	
Traitors Cove Salt Chuck	3		Ketch C-5	55°42'	131°39'			C							
Vallenar Bay Estuary	3		Ketch C-6	55°22'	131°50'			C							
Yes Bay/Wolverine Cr. Estuary	3		Ketch C-6	55°54'	131°47'			C							
Boca de Quadra			Ketch A-3	54°57'	129°59'	H		C							
Dall Bay			Ketch A-6	55°09'	131°44'									P	
Hydaburg			Craig A-3	55°12'	132°48'										
Joe Mace Island			Peters B-5	56°20'	133°37'				R,K,I					P	
Manzanita Bay			Ketch C-3	55°27'	129°02'	H	E	C							
Naha Bay			Ketch C-5	55°35'	131°42'										
Percy Is.–haulout			Ketch C-5	54°56'	131°35'										
Portage Cove			Ketch C-5	55°38'	129°07'	H		C						P	
Refuge Cove			Ketch C-5	55°24'	131°45'									P	
Smeaton Bay			Ketch C-5	55°16'	128°58'	H		C							
Thom’s Place			Ketch C-5	56°10'	132°07'									P	
Totem Bight			Ketch C-5	55°25'	131°46'									P	
Walker Cove			Ketch C-5	55°34'	128°58'	H		C							

\* ESI information not available

NOTE: Resource codes key can be found in Table G-1-1 on page G-1-2.

**B.     SOUTHEAST ALASKA ZONE 2**

The Work Group developed Table G-1-3 to aid in the selection of sites from within Southeast Alaska Zone 2. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-3 shows the location of GRS sites in Zone 2. No sites were selected for Zone 2 because the sensitive areas identified were along exposed areas of the Gulf of Alaska where response equipment is not effective or dangerous to deploy.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

**A note of caution:** As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.



Figure G-1-3. Southeast Alaska GRS Index Map Zone 2.

Table G-1-3. **Zone 2** site selection table for Geographic Response Strategies.

Locations	Priority	GRS #	ESI Map #	lat (N)	lon (W)	Marine Mammals	Fish	Birds	Coastal Habitat	Cultural Resources	Subsistence Use	Recreational Use	Commercial Fishing	Land Management	Waterfront Activity
Barrier Island in Cordova Bay	1		Ketch B-6	54°48'	132°26'	O		S							
Spanish Island	2		Prince Rupert D-3*	55°58'	134°07'	S, O									
Warren Island	2		Ketch_ C-3	55°53'	133°53'			S,M							
Forrester Island	3		Ketch D-3	54°50'	133°31'	S		S							
Maurelle Island	3		Craig C-2	55°38'	133°37'	O									
Big Salt Lake			Prince Rupert D-4	55°37'	133°00'			S							
Craig			Craig B-1	55°28'	133°08'										
Hazy Island–outer coast			Craig C-2	55°52'	134°35'	S		C,S				H			
Heceta Island–westside			Prince Rupert C-3	55°47'	133°33'			S							
Klawock			Craig C-4	55°33'	133°05'										
Lowrie Island–outer coast			Dixon Entrance D-5	54°51'	133°32'			S							
Craig D-4			Craig D-4	55°52'	133°09'			S							
Noyes Island–W. coast			Craig B-6	55°30'	133°45'										
Sea Otter Sound			Craig D-5	55°50'	133°27'										
Windy Bay (N. Coronation Is.)			Craig D-7	55°54'	134°13'	S,O	S	S							

\* ESI information not available

NOTE: Resource codes key can be found in Table G-1-1 on page G-1-2.

C.     SOUTHEAST ALASKA ZONE 3

The Work Group developed Table G-1-4 to aid in the selection of sites from within Southeast Alaska Zone 3. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-4 shows the location of GRS sites in Zone 3.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

**A note of caution:** As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.

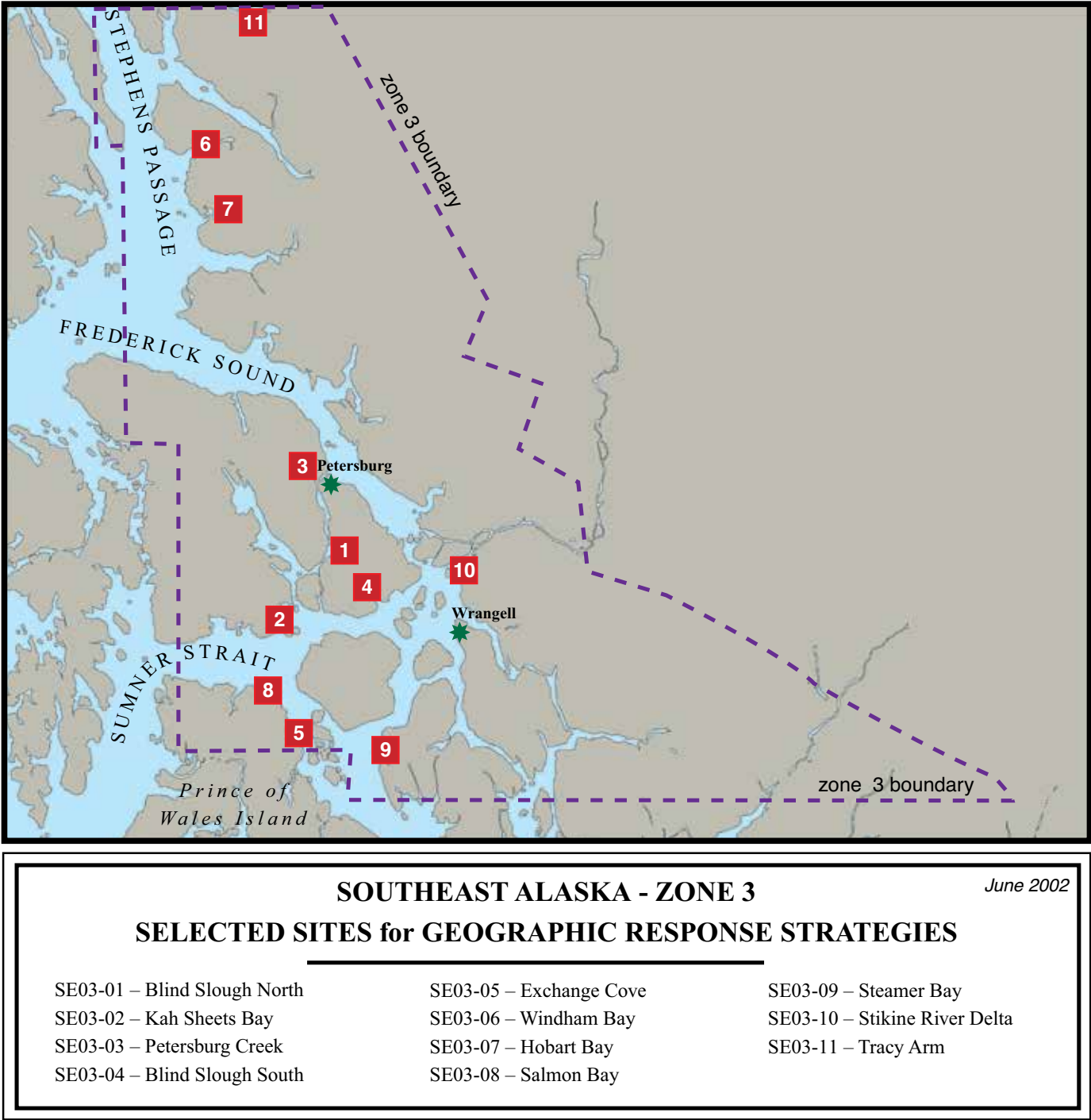


Figure G-1-4. Southeast Alaska GRS Index Map Zone 3.

Table G-1-4. **Zone 3** site selection table for Geographic Response Strategies.

Locations	Priority	GRS #	ESI Map #	lat (N)	lon (W)	Marine Mammals	Fish	Birds	Coastal Habitat	Cultural Resources	Subsistence Use	Recreational Use	Commercial Fishing	Land Management	Waterfront Activity
Blind Slough North	1	SE03-01	Petersburg C-3	56° 31'	132° 42'		S	C	T,M	M		H			
Kah Sheets Bay	1	SE03-02	Petersburg C-4	56° 30'	133° 06'		S,H	C	T,K	R		H	Herring		
Petersburg Creek	1	SE03-03	Petersburg D-3	56° 49'	132° 59'		S	C	M,I	I					
Blind Slough South	1	SE03-04	Petersburg C-3	56° 32'	132° 44'		S	C	T,M,R	I		H			
Exchange Cove	1	SE03-05	Petersburg A-4	55° 12'	133° 04'	H	S	C	T,K,M	M					
Windham Bay	1	SE03-06	Sumdum C-5*	57° 34'	133° 24'	H	S	C	M, T	M					
Hobart Bay	1	SE03-07	Sumdum B-5*	57° 25'	133° 24'	H	S	C	R	I	I				
Salmon Bay	1	SE03-08	Sumdum B-5*	56° 18'	133° 09'	H	S		M	M					
Steamer Bay	1	SE03-09	Petersburg A-3	56° 09'	132° 41'		S		K	M		H			
Stikine River Delta	1	SE03-10	Petersburg C-2	56° 35'	132° 23'	H	S	C	T,M	M	F	H		I	
Tracy Arm–head	1	SE03-11	Sumdum D-5	57° 51'	133° 35'	H	M,S	K,M,S	T	M		H			
Duncan Canal–N head	2		Petersburg D-4	56° 46'	133° 15'	H		C	T,K			H			
Farragut Bay	2		Sumdum A-4	57° 06'	133° 13'			C							
Muddy River	2		Petersburg D-3	56° 54'	132° 49'			C							
Port Snettishan	2		Sumdum D-6	57° 58'	133° 50'			M							
Endicott Arm	3		Sumdum C-4	57° 42'	133° 30'		M								
LeConte Bay	3		Sumdum C-4	56° 44'	132° 31'		M								
Beecher Pass			Petersburg C-4	56° 35'	133° 01'			C	T,R,K,I		I			P	
Castle River			Petersburg C-4	56° 66'	135° 20'			C							
Petroglyph Beach			Petersburg B-5	56° 28'	132° 22'					M				P	
Port Houghton			Sumdum B-4	57° 19'	133° 17'										
St. John Harbor			Petersburg B-3	56° 26'	132° 57'										

\* ESI information not available

NOTE: Resource codes key can be found in Table G-1-1 on page G-1-2.

D. SOUTHEAST ALASKA ZONE 4

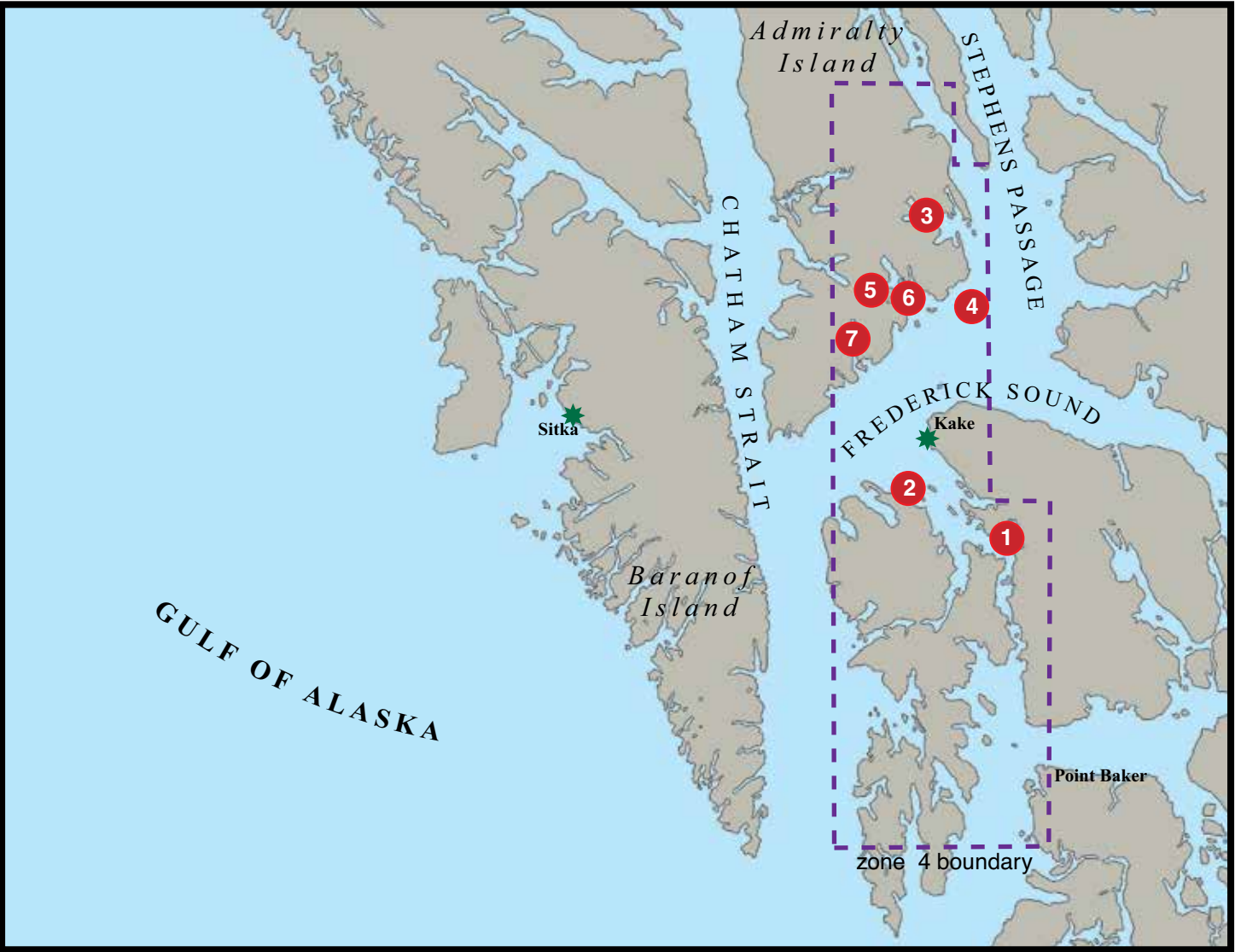
The Work Group developed Table G-1-5 to aid in the selection of sites from within Southeast Alaska Zone 4. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-5 shows the location of GRS sites in Zone 4.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

**A note of caution:** As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.



SOUTHEAST ALASKA - ZONE 4	
SELECTED SITES for GEOGRAPHIC RESPONSE STRATEGIES	
SE04-01 – Big John Bay	SE04-05 – Cannery Cove/Donkey Bay
SE04-02 – Keku Islands	SE04-06 – Pybus Bay
SE04-03 – Gambier Bay	SE04-07 – Eliza Harbor
SE04-04 – The Brothers	

Figure G-1-5. Southeast Alaska GRS Index Map Zone 4.

Table G-1-5. **Zone 4** site selection table for Geographic Response Strategies.

Locations	Priority	GRS #	ESI Map #	lat (N)	lon (W)	Marine Mammals	Fish	Birds	Coastal Habitat	Cultural Resources	Subsistence Use	Recreational Use	Commercial Fishing	Land Management	Waterfront Activity
Big John Bay	1	SE04-01	Petersburg D-6	56°81'	133°70'		S	C	T	I	F				
Keku Islands	1	SE04-02	Petersburg D-6	56°55'	134°05'	W,O	H	C	M,I,K	M	F	H			
Gambier Bay–NW arm	1	SE04-03	Sitka B-1*	57°49'	134°05'	H	S	C	M,T	M		H			
Brothers, The	1	SE04-04	Sumdum B-6*	57°17'	133°50'	S,H		C		I		H			
Cannery Cove/Donkey Bay	1	SE04-05	Sitka B-1*	57°19'	134°09'	H	S	C	K	I		H	S		
Pybus Bay–NW arm	1	SE04-06	Sitka B-1*	57°22'	134°10'	H	S	C	K	M		H	S		
Eliza Harbor	1	SE04-07	Sitka A-1*	57°12'	134°17'		S	C	M	I					
Castle River	2		Petersburg C-4	56°66'	135°20'										
Hamilton Bay	2		Petersburg D-6	56°53'	133°51'			C							
Kadake Bay	2		Petersburg D-6	56°48'	133°58'			C							
Kuiu Island–S. end	2		Port Alexander C-1	56°06'	134°04'	O									
Rocky Pass	2		Petersburg C-6	56°70'	133°43'	W						H			
Security Bay	2		Port Alexander D-1	56°50'	134°19'			C	M,T,I						
Kake			Petersburg D-6	56°58'	133°56'										
Tebenkof Bay			Port Alexander C-1	56°30'	134°12'										

\* ESI information not available

NOTE: Resource codes key can be found in Table G-1-1 on page G-1-2.

E. **SOUTHEAST ALASKA ZONE 5**

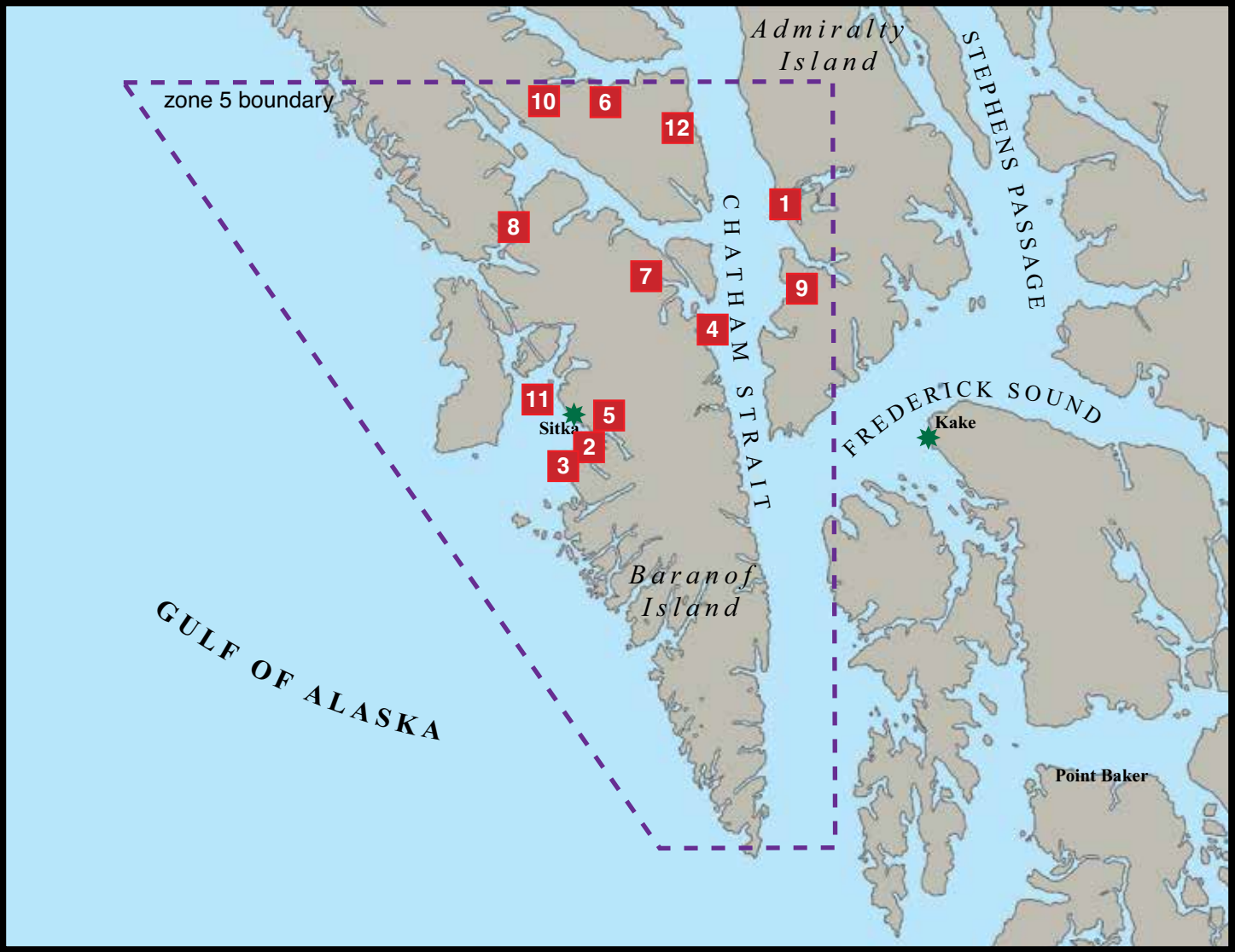
The Work Group developed Table G-1-6 to aid in the selection of sites from within Southeast Alaska Zone 5. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-6 shows the location of GRS sites in Zone 5.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

**A note of caution:** As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.



SOUTHEAST ALASKA - ZONE 5		
SELECTED SITES for GEOGRAPHIC RESPONSE STRATEGIES		
SE05-01 – Angoon/Mitchell Bay	SE05-05 – Indian River	SE05-09 – Chaik Bay
SE05-02 – Sandy Cove	SE05-06 – Kadashan Bay	SE05-10 – Crab Bay
SE05-03 – Pirate Cove	SE05-07 – Kelp Bay Middle Arm	SE05-11 – Middle Island (SW Cove)
SE05-04 – Cosmos Cove	SE05-08 – Baby Bear	SE05-12 – Basket Bay

Figure G-1-6. Southeast Alaska GRS Index Map Zone 5.

Table G-1-6. **Zone 5** site selection table for Geographic Response Strategies.

Locations	Priority	GRS #	ESI Map #	lat (N)	lon (W)	Marine Mammals	Fish	Birds	Coastal Habitat	Cultural Resources	Subsistence Use	Recreational Use	Commercial Fishing	Land Management	Waterfront Activity
Mitchell Bay/Angoon	1	SE05-01	Sitka C-2*	57°54'	134°40'	W,H	S	C	I	M	F	H	S,P		
Sandy Cove	1	SE05-02	Port Alexander D-4	56°59'	135°19'		S		M,T,R,K	I		H			
Pirate Cove	1	SE05-03	Port Alexander D-5	56°59'	135°22'		H		I,T,R,K	R		H			
Cosmos Cove	1	SE05-04	Sitka A-3	57°14'	134°52'		S	C	K	M		H			
Indian River	1	SE05-05	Sitka A-4&5	57°02'	135°18'		S,H,R	C	M,R,I,K	M		H	H	N	
Kadashan Bay	1	SE05-06	Sitka C-4	57°43'	135°13'		S	C	M,T	M					
Kelp Bay	1	SE05-07	Sitka B-4	57°21'	135°01'		S		K,M,R,T	R		H			
Baby Bear Marine Park	1	SE05-08	Sitka B-5	57°26'	135°34'	H,S	R	C	T,R,K,I	M		H		P	
Chaik Bay	1	SE05-09	Sitka B-2*	57°19'	134°33'		S	C	T,M	M	F				
Crab Bay	1	SE05-10	Sitka C-4&5	59°11'	135°18'	H	S	C	T,R,K,I	M	F,I	H			
Middle Island (SW cove)	1	SE05-11	Sitka A-5	57°06'	135°27'	W,H	H		K,M,T,R,I	R	F,I	H			
Basket Bay	1	SE05-12	Sitka D-3*	57°39'	134°54'	H	S		T,M	I					
Sitkoh Bay	1		Sitka C-3	57°29'	134°54'				K						
St. Lazeria Island	2		Port Alexander D-4	56°59'	135°43'			S	I			H			
Big Bear/Baby Bear			Sitka B-5	57°25'	135°34'										
Biorka Island			Port Alexander D-5	56°51'	135°32'										
Deep Inlet			Port Alexander D-4	56°58'	135°25'		S		K			H	S		
Halibut Pt.			Sitka A-5	57°06'	135°24'										
Kasnyku Bay, E. Baranof Island			Sitka A-3	57°13'	134°50'										
Little Port Walter–NOAA			Sitka A-3	56°23'	134°38'										
Magoun Island			Sitka A-5	57°10'	135°33'				R,K,I					P	
Old Sitka			Sitka A-5	57°07'	135°22'				M,T,K,I	M	F			P	
Patterson Bay (Deer Lake)			Port Alexander C-3	56°31'	131°44'		S								
Paulou Bay															
Redfish Bay			Port Alexander B-3	56°19'	131°45'		S								
Redoubt Bay			Port Alexander D-5	56°54'	131°52'		S								
Salisbury Sound			Sitka B-6	57°21'	131°54'										
Sea Lion Cove			Sitka B-6	57°18'	135°50'										

\* ESI information not available

NOTE: Resource codes key can be found in Table G-1-1 on page G-1-2.

F. SOUTHEAST ALASKA ZONE 6

The Work Group developed Table G-1-7 to aid in the selection of sites from within Southeast Alaska Zone 6. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-7 shows the location of GRS sites in Zone 6.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

**A note of caution:** As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.

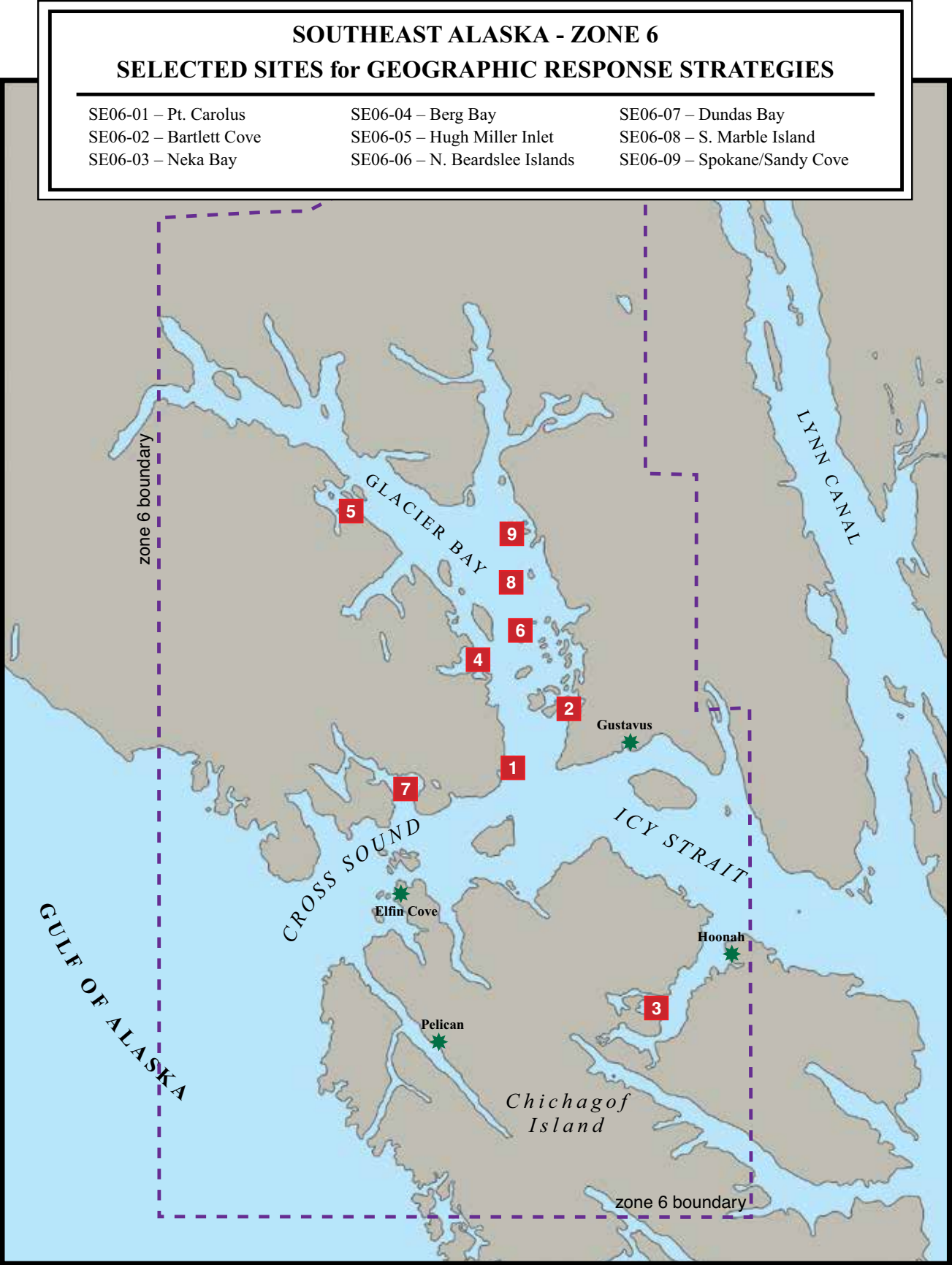


Figure G-1-7. Southeast Alaska GRS Index Map Zone 6.

Table G-1-7. **Zone 6** site selection table for Geographic Response Strategies.

Locations	Priority	GRS #	ESI Map #	lat (N)	lon (W)	Marine Mammals	Fish	Birds	Coastal Habitat	Cultural Resources	Subsistence Use	Recreational Use	Commercial Fishing	Land Management	Waterfront Activity
Pt. Carolus	1	SE06-01	Mt. Fairweather B-1	58° 22'	136° 03'	H,S,W	R,S	C,M	M,R	M		H		N	
Bartlett Cove	1	SE06-02	Juneau B-6	58° 27'	135° 53'	W	R,S	C,M	M,R	M		H		N	M
Neka Bay	1	SE06-03	Juneau A-5	58° 02'	135° 39'	H,W	S	C,S	T,M,K	M	I	H			
Berg Bay	1	SE06-04	Mt. Fairweather C-1	58° 30'	136° 12'	W	S	C,M	M,R,I	M		H		N	
Hugh Miller Inlet	1	SE06-05	Mt. Fairweather D-2	58° 44'	136° 28'	W		C,M,K	M,R,I			H		N	
North Beardslee Islands	1	SE06-06	Juneau C-6	58° 35'	135° 59'	H,W	R	C,M	M,R,K,I			H		N	
Dundas Bay	1	SE06-07	Mt. Fairweather B-2	58° 27'	136° 31'	H	S	C,M	M,R,T			H		N	
S. Marble Island	1	SE06-08	Mt. Fairweather C-1	58° 38'	136° 02'	W,S,H		S,M	R			H		N	
Spokane/Sandy Cove	1	SE06-09	Juneau C-6	58° 42'	135° 58'	H,W	S	C,M	R			H		N	
Graves Rocks	1		Mt. Fairweather A-3	58° 14'	136° 45'	S	R							N	
Johns Hopkins Inlet	1		Mt. Fairweather A-4	58° 50'	137° 06'	H		C	R			H		N	
Adams Inlet	2		Juneau D-6	58° 51'	135° 59'	H	S	C,M	M,R			H		N	
Murphy Cove	2		Mt. Fairweather B-4	58° 16'	136° 43'		R	C	M,R,K,I	M		H		N	
Salt Chuck River (Icy Straight)	2		Juneau B-3	58° 20'	136° 11'		R,S	C,M	M,R,I	M				N	
Fern Harbor	3		Mt. Fairweather B-2	58° 18'	136° 29'		R	C,M	M,R	M		H		N	
Gull Lake Stream	3		Mt. Fairweather D-1	58° 56'	136° 17'			C	R			H		N	
McBride Inlet	3		Skagway A-3	59° 01'	136° 08'	H		C	R			H		N	
Muir Inlet	3		Mt. Fairweather D-1	58° 54'	136° 05'	H,W		C,M	R	M		H		N	
Pt. Gustavus	3		Juneau B-6	58° 22'	135° 54'	O,W		C	R,K,I	M		H		N	
Reid Inlet	3		Mt. Fairweather D-3	58° 52'	136° 48'			C	R			H		N	
Blue Mouse Cove			Mt. Fairweather D-2	58° 46'	136° 29'										
Cape Spencer			Mt. Fairweather A-2	58° 12'	136° 39'										
Elfin Cove			Mt. Fairweather A-2	58° 11'	136° 20'										B
Fingers Bay			Mt. Fairweather C-1	58° 35'	136° 12'										
Hoonah			Juneau A-5	58° 06'	135° 26'										
Pelican			Sitka D-7	57° 57'	136° 13'										B
Sitakaday Narrows			Mt. Fairweather C-1	58° 28'	136° 02'										
Wolf Point Creek			Skagway A-4	58° 59'	136° 09'										
Wolf Point Creek			Skagway A-4	58 59	136 09										

NOTE: Resource codes key can be found in Table G-1-1 on page G-1-2.

G. SOUTHEAST ALASKA ZONE 7

The Work Group developed Table G-1-8 to aid in the selection of sites from within Southeast Alaska Zone 7. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-8 shows the location of GRS sites in Zone 7.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

**A note of caution:** As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.

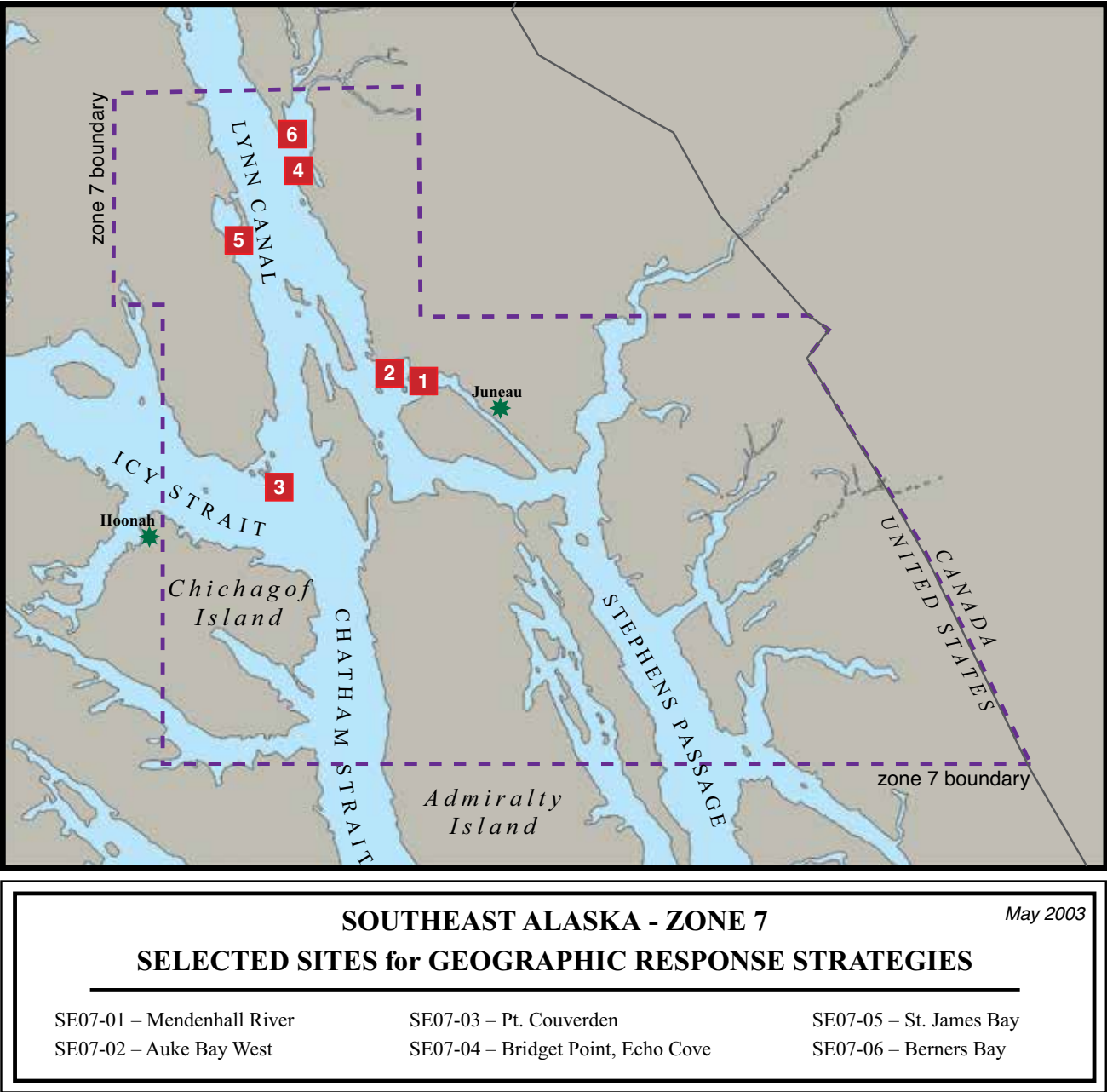


Figure G-1-8. Southeast Alaska GRS Index Map Zone 7.

Table G-1-8. **Zone 7** site selection table for Geographic Response Strategies.

Locations	Priority	GRS #	ESI Map #	lat (N)	lon (W)	Marine Mammals	Fish	Birds	Coastal Habitat	Cultural Resources	Subsistence Use	Recreational Use	Commercial Fishing	Land Management	Waterfront Activity
Mendenhall River	1	SE07-01	Juneau B-2*	58°21'	134°35'	W	S	C	T,M	R		H		H	
Auke Bay West	1	SE07-02	Juneau B-2*	58°22'	134°41'			C	K,M	M		H			M
Pt. Couverden–NE & NW	1	SE07-03	Juneau A-4*	58°11'	135°03'		S	C	T,I,M	I		H			
Bridget Point, Echo Cove	1	SE07-04	Juneau C-3*	58°40'	134°57'		R,E,Hooligan	C	M,T,K,R,I	I		H	S	P	
St. James Bay	1	SE07-05	Juneau C-4*	58°35'	135°10'	H	S	C	T,M,K	I		H		P	
Berners Bay	1	SE07-06	Juneau D-3&C-3*	58°44'	134°59'	S,H	S,E,H	C	M,T	I		H			
North Gastineau Channel	1		Juneau B-2	58°19'	134°28'		S	C	T, M			H		H	
Admiralty Cove	2		Juneau A-2	58°10'	134°34'				M,K,I						
Amalga Harbor	2		Juneau A-2	58°29'	134°47'	H	R,S		M,K,I		F,I		H	P	M
Douglas Island	2		Juneau B-2	58°16'	134°30'			M							
Eagle Beach	2		Juneau C-4	58°32'	135°20'		I	C	M,T			H		P	
Taku Inlet	2		Juneau A-1	58°12'	134°06'		S				F	H	S		
Oliver Inlet	3		Juneau A-1	58°08'	134°20'			C							
Pack Creek	3		Sitka D-1	57°54'	134°17'		H,S					H		P	
Shelter Island	3		Juneau B-3	58°27'	134°53'				T,R,I			H	S	P	
Angoon			Sitka C-2	57°30'	134°35'										
Auke Bay Island			Juneau B-3	58°22'	134°39'										
Ernest Gruening			Juneau C-2	58°28'	134°47'									P	
Funter Bay			Juneau A-3	58°14'	134°54'				K			H		P	
Gilbert Bay			Sumdum D-6	57°58'	133°43'			C							
Johnson Creek			Juneau B-2	58°20'	134°32'				M					P	
King Salmon Bay			Juneau A-1	58°01'	134°18'		S		M						
Seymour Canal			Sitka D-1	57°39'	133°56'										
Taku Harbor			Juneau A-1	58°03'	134°01'									P	
Wheeler Creek			Juneau A-3	58°03'	134°47'		S		T						

\* ESI information not available

NOTE: Resource codes key can be found in Table G-1-1 on page G-1-2.

H. SOUTHEAST ALASKA ZONE 8

The Work Group developed Table G-1-9 to aid in the selection of sites from within Southeast Alaska Zone 8. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-9 shows the location of GRS sites in Zone 8.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

**A note of caution:** As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.

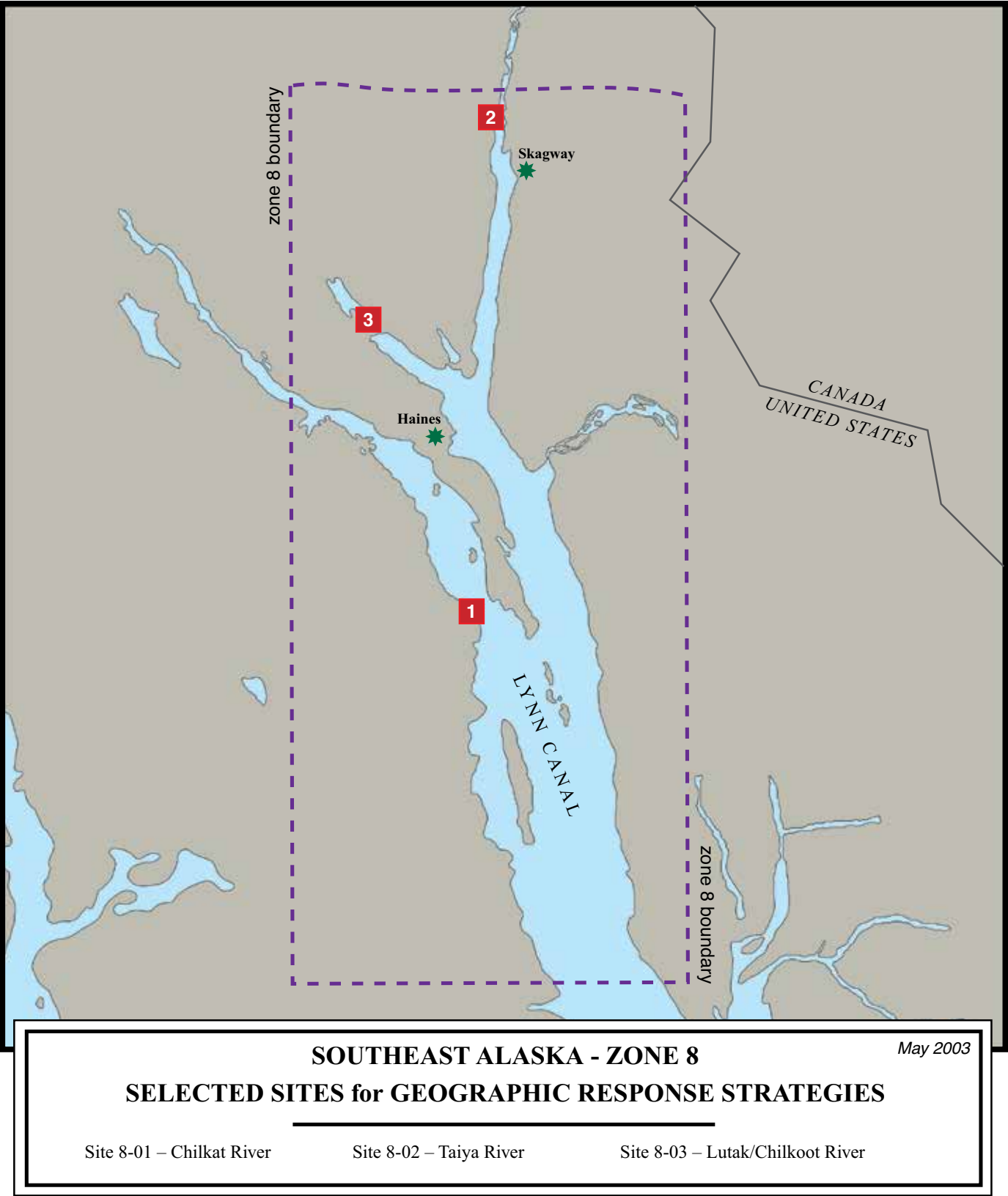


Figure G-1-9. Southeast Alaska GRS Index Map Zone 8.

Table G-1-9. **Zone 8** site selection table for Geographic Response Strategies.

Locations	Priority	GRS #	ESI Map #	lat (N)	lon (W)	Marine Mammals	Fish	Birds	Coastal Habitat	Cultural Resources	Subsistence Use	Recreational Use	Commercial Fishing	Land Management	Waterfront Activity
Chilkat River	1	SE08-01	Skagway A-2*	59° 14'	135° 33'		E,S,H	C		M	F	H	S		
Taiya River	1	SE08-02	Skagway B-1*	59° 29'	135° 21'	S,H	E,S	C	M,T,R	M		H		N	
Lutak/Chilkoot River	1	SE08-03	Skagway B-2*	59° 19'	135° 33'		E,S	C	T	M	F, I	H	S		
Chilkat	2		Skagway B-3	59° 09'	135° 21'	S,H	R	C	T,R,K		F,I	H	S	P	
Katzehin River	2		Skagway A-1	59° 12'	135° 18'		S		T, M		F				
Chilkat Island			Skagway A-1	59° 01'	135° 15'	S,H		C	T,R,K	M	I		S	P	
Portage Cove			Skagway A-2	59° 14'	135° 20'									P	
Seduction Point			Skagway A-1	59° 04'	135° 18'									P	
Sullivan Island			Juneau D-4	58° 55'	135° 18'									P	

\* ESI information not available

NOTE: Resource codes key can be found in Table G-1-1 on page G-1-2.

I. **SOUTHEAST ALASKA ZONE 9**

The Work Group developed Table G-1-10 to aid in the selection of sites from within Southeast Alaska Zone 9. The table consists of identified sites in each row with information about resources at each site that could qualify the site as an area of major concern in the columns. Shaded rows in the table represent the sites in the zone (priority 1 sites) selected for initial GRS development.

Table G-1-1 contains the key to the codes used in the site selection table.

Figure G-1-10 shows the location of GRS sites in Zone 9.

Sites that were not selected for initial GRS development may still require protection during an oil spill, and they may be selected for future GRS development. Spill responders should consider the identification and location of these sites when committing spill equipment and personnel during large oil spills.

**A note of caution:** As of June 2003, only 33 of the 60 GRS sites have been surveyed and/or tested. Until each GRS has been verified and refined through site surveys and tests, they should be considered as preliminary tactics subject to modification, if necessary.

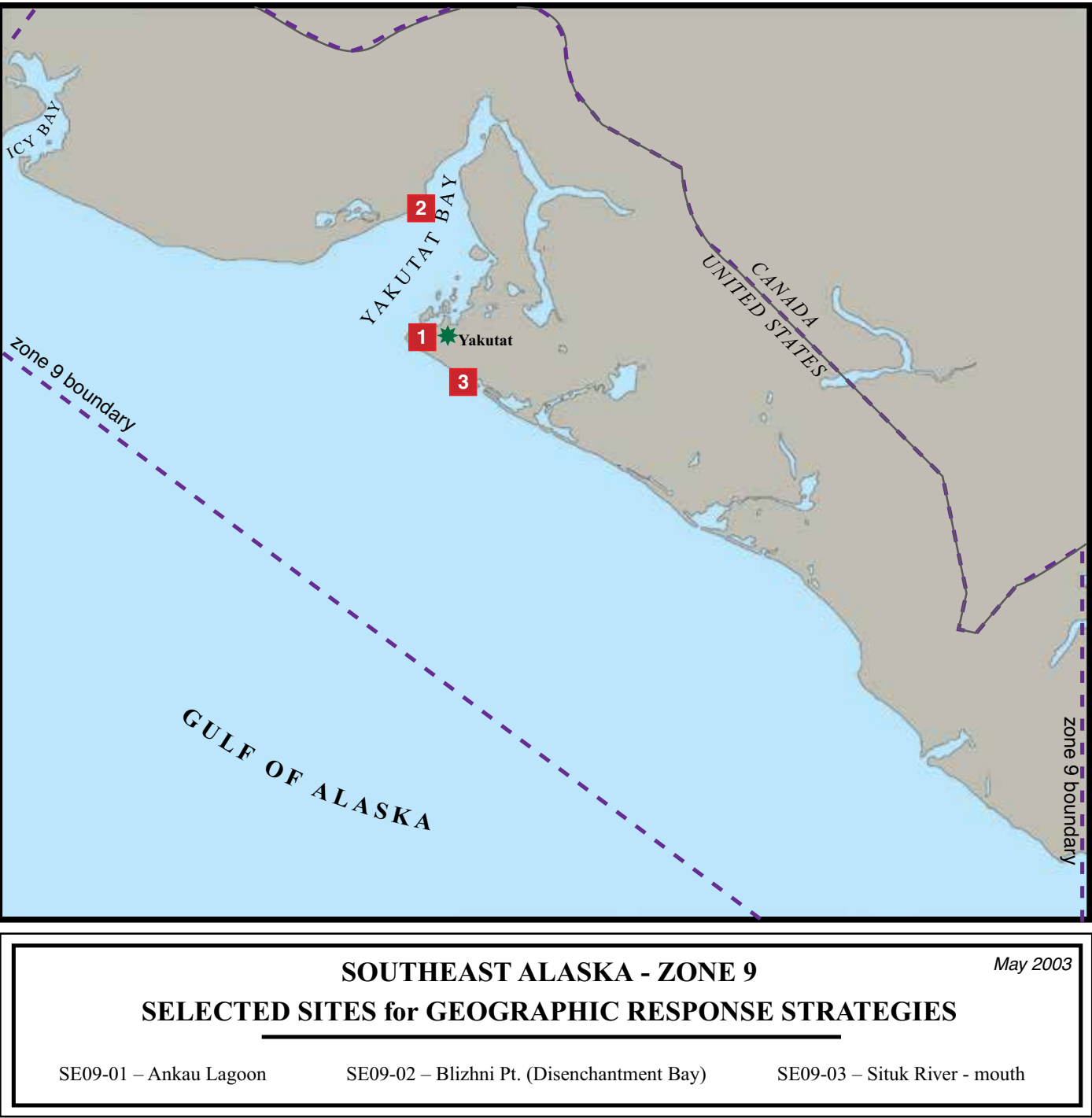


Figure G-1-10. Southeast Alaska GRS Index Map Zone 9.

Table G-1-10. **Zone 9** site selection table for Geographic Response Strategies.

Locations	Priority	GRS #	ESI Map #	lat (N)	lon (W)	Marine Mammals	Fish	Birds	Coastal Habitat	Cultural Resources	Subsistence Use	Recreational Use	Commercial Fishing	Land Management	Waterfront Activity
Ankau Lagoon	1	SE09-01	Yakutat C-5	59°33'	137°47'	H	H, S	C,M	K,R,M	I	F, I	H	S		
Blizhni Pt.–Disenchantment Bay	1	SE09-02	Yakutat D-5&6	59°50'	139°49'	H		M,K	M	R			N	N	
Situk River	1	SE09-03	Yakutat B-5	59°26'	139°32'	H	E,S	C,S	T,M	R	F	H			
Disenchantment Bay–N.	2		Yakutat D-5	59°59'	139°32'	H	R	M,C,K	R,K		I	H		N	
Lituya Bay	2		Mt. Fairweather C-5	58°38'	137°34'		R	C	M,R,I	M		H		N	
Yakutat Bay	2		Yakutat C-5	59°35'	139°52'	O,W	H,R	M,C,K	R,K		F,I		S,P,N		M
Arrowhead–N. Tsaa Fjord	3		Icy Bay D-2	60°11'	141°41'	H		C	M,R			H		N	
Kageet Pt.–Icy Bay	3		Bering Glacier A-1	60°03'	141°11'			C	R					N	
Dry Bay			Yakutat A-2	59°07'	138°37'	O,H	E,S	C			F	H	N		
E. Shore of Icy Bay			Icy Bay D-2	59°56'	141°22'										
Pt. Manby			Yakutat C-7	59°41'	140°19'	H	S						S		
Sitkagi Bluffs			Yakutat C-8	59°42'	140°41'	S		C							
Yakutat Foreland rivers			Yakutat B-4	59°15'	139°52'	S,H	E,S	C	M,T				S		

NOTE: Resource codes key can be found in Table G-1-1 on page G-1-2.